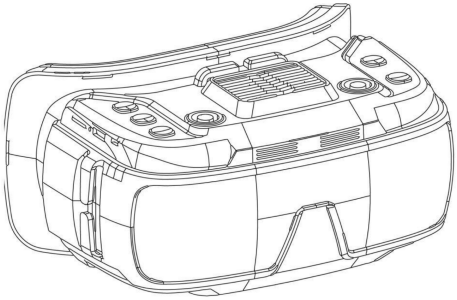
VR200

5.8G FPV Video Glasses
Instruction Manual



Read this manual carefully before first use. This product is not a children's toy and is not intended for children under 14 years of age.

Rotorama, s.r.o. · www.rotorama.cz

Contents

1. Safety Instructions

1.1 General rules

1.2 Health and safe use of the goggles

1.3 Battery and charging

2. Product Description

2.1 Product features

2.2 Dimensions

3. Keys and Interfaces

4. Operation

5. Parameter Specifications

6. Frequencies and Operation in the Czech Republic

6.1 Frequency table

6.2 Conditions of operation in the Czech Republic

6.3 Flying with goggles (FPV)

7. Maintenance and Troubleshooting

8. Information for the EU and Czech Market

8.1 Importer and responsible person in the EU

8.2 Product conformity

8.3 Disposal of electrical equipment and batteries

9. Warranty and rights arising from defective performance

1. Safety Instructions

1.1 General rules

Please read the instruction manual thoroughly before operation, and be familiar with the product features. Keep the manual for later use and hand it over together with the product to any subsequent user.

- Age suggestion: **over 14 years old**. Children under the age of 14 who use any monitor at close range may develop eye development problems. **This is not a children's toy.**
- Please avoid using the product in a humid environment. The device is not protected against the ingress of water.
- Please use a standard USB charger; the charging voltage can only be **5–23 V**.
- HDMI input and RF input **cannot work at the same time**. It is forbidden to insert external video in RF receiving mode.
- Please don't use corrosive cleaner to wipe the product. Wipe the device with a soft, slightly damp cloth.
- Do not cover the fan outlet (item 7). Covering it impairs cooling of the device.
- Do not disassemble or modify the device yourself.

1.2 Health and safe use of the goggles

The goggles show the image directly in front of the eyes and, when worn for longer periods, may cause nausea, dizziness or eye strain in sensitive persons.

- When using the goggles for the first time, get used to them gradually and take regular breaks.
- If you feel nausea, dizziness, headache, burning eyes or blurred vision, **stop using the goggles immediately** and continue only after the symptoms have fully subsided.
- Do not use the goggles while walking, cycling or driving, or in places where there is a risk of falling or collision.
- If you suffer from epilepsy or a seizure disorder, consult a doctor before use.
- Never look at the sun or any other strong light source through the optics of the device.
- Put the goggles on and take them off while seated or in a stable stance; you cannot see your surroundings while wearing them.

※ If you use the goggles to fly an unmanned aircraft, the special rules described in chapter 6.3 apply.

1.3 Battery and charging

The device contains a built-in lithium-polymer battery of 3.7 V / 2000 mAh. Handle the battery according to the following rules.

- Charge only through the USB-C port of the device, with a voltage of **5–23 V**. The manufacturer recommends a 12 V / 2 A or 5 V / 2 A charger.
- Charging is indicated by the charging indicator (item 14): **red** = charging in progress, **green** = battery fully charged.
- Charge on a non-flammable surface, away from flammable materials, and do not leave charging unattended.
- Do not charge or store the device at temperatures below freezing or in direct sunlight.
- Do not continue to use a device that is swollen, mechanically damaged or emits an odour; hand it over at a take-back point without delay.
- Before longer storage, charge the device partially and keep it in a dry, cool place; do not leave the battery fully discharged for a long time.
- The battery is built in. Do not attempt to remove it yourself — at the end of its service life, hand over the complete device including the battery as described in chapter 8.3.

2. Product Description

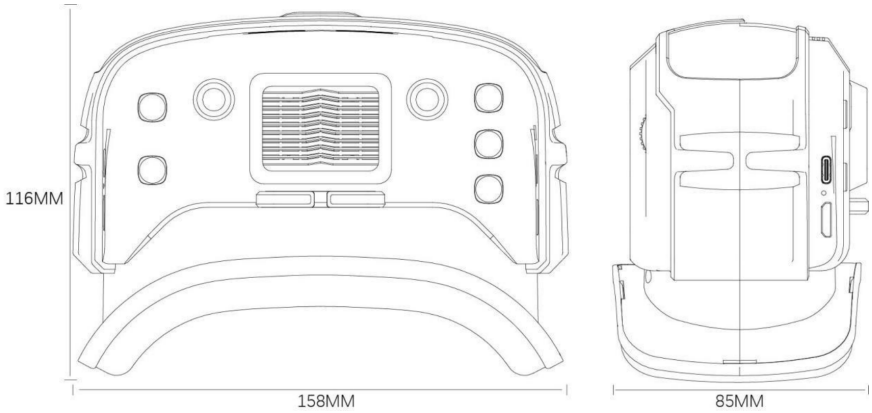
The VR200 are analogue FPV video glasses with a built-in 5.8 GHz receiver, an IPS display and a DVR recording unit. They are used to receive and watch the analogue image from a video transmitter (VTX), for example on a model aircraft or a drone.

2.1 Product features

- New refractive optical path design, small size and light weight.
- The object distance can be adjusted to match **0°–700°** myopia.
- Low power consumption, working current of 1100 mA.
- High-sensitivity dual-filtering 5.8 GHz receiving module, strong anti-interference, dual diversity reception and a more stable signal.
- The module adopts universal 40 channels with an automatic frequency searching function.
- 3.5-inch 1024 × 600 resolution high brightness IPS screen.
- Built-in 3.7 V / 2000 mAh lithium-polymer battery.
- Universal TYPE-C charging interface, which supports 5–23 V wide voltage charging.
- Real-time video return with zero delay.
- Support menu in 8 languages.
- Support for external HDMI signal input, including DVR recording of the HDMI input.

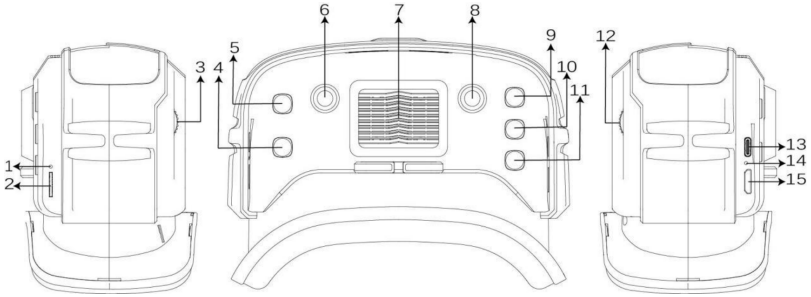
※ The vision correction is given in the Chinese notation, in which 100 degrees corresponds to 1 dioptre. The range of 0°–700° therefore corresponds to approximately 0 to −7 dioptres.

2.2 Dimensions



Dimension drawing: body size 158 × 116 × 85 mm, body weight 350 g (excluding antenna). Antenna and headband are not included.

3. Keys and Interfaces



Layout of keys and interfaces

1 — Video indicator: displays the different working states of the DVR.

2 — TF card: TF card slot for a high-speed memory card of up to 32 GB.

3 — Adjusting gear A: rotating the gear pushes the inner lens, thus adjusting the object distance.

4 — Power button: long press (3 seconds) to turn on/off; short press to enter the menu, every further press switches to the next menu item.

5 — Search button: short press to search the signal automatically (it locks the frequency point with the strongest signal); long press for 3 seconds to enter the HDMI input mode.

6 — Antenna head A: inner needle antenna head equipped with an SMA inner hole antenna.

7 — Fan outlet

8 — Antenna head B: inner needle antenna head equipped with an SMA inner hole antenna.

9 — Band+ button: short press to switch the frequency band (cyclically A–B–E–F–R). In menu mode it is „−“.

10 — RED button: short press to start recording / stop recording.

11 — CH+ button: short press to switch the frequency point (cyclically 1–2–3–4–5–6–7–8). In menu mode it is „+“.

12 — Adjusting gear B: rotating the gear pushes the inner lens, thus adjusting the object distance.

13 — Charging port: TYPE-C, charging with a DC voltage of 5–23 V.

14 — Charging indicator: red when charging, green when full.

15 — HDMI interface: mini HDMI jack, external video input.

4. Operation

4.1 Switching on and off

The device is turned on and off by a long press of the **Power** button (item 4) for approximately 3 seconds.

4.2 Adjusting the image sharpness

Rotating the two adjusting gears (items 3 and 12) pushes the inner lenses and changes the object distance. Adjust both sides so that the image is sharp for each eye separately.

4.3 Selecting the band and channel

The frequency can be selected manually or searched automatically.

- A short press of the **Band+** button (item 9) switches the band in the order A → B → E → F → R.
- A short press of the **CH+** button (item 11) switches the channel in the order 1 → 2 → … → 8.
- A short press of the **Search** button (item 5) starts the automatic search; the device locks the channel with the strongest signal.

4.4 Menu

In boot mode, press **Power** briefly to enter the menu bar. In the menu bar mode the keys have the following functions:

Key	Function in the menu
4 — Power	scrollable option
5 — Search	automatically search for channels
9 — Band+	parameter adjustment „−“
10 — RED	invalid
11 — CH+	parameter adjustment „+“

The menu language can be switched between Chinese, English, Japanese, German, French, Spanish, Italian and Russian.

4.5 DVR recording

Before recording, insert a high-speed memory card of up to 32 GB into the TF card slot (item 2). Recording is started and stopped by a short press of the **RED** button (item 10). The working state of the DVR is shown by the video indicator (item 1).

In the menu you can select the video size (VGA / D1 / HD) and the recording time of a single file (off / 3 / 5 / 10 minutes). Recording is made at 30 frames per second, in MJPEG compression, into AVI files.

4.6 Playback

In menu mode, select the *DVR* option to enter DVR playback mode. In DVR mode the keys have the following functions:

Key	Function during playback
4 — Power	return / exit the playback mode
5 — Search	delete the current file
9 — Band+	select video forward; adjust fast forward when playing video
10 — RED	play / pause
11 — CH+	select video backward; adjust rewind when playing video

4.7 HDMI input

To switch to HDMI input mode, press the **Search** button (item 5) for 3 seconds. Connect the external video source to the mini HDMI jack (item 15). The HDMI input signal can also be recorded by the DVR.

※ HDMI input and RF input cannot work at the same time. Do not connect an external video source in RF receiving mode.

5. Parameter Specifications

Model	VR200
Product name	5.8G FPV video glasses
Display	3.5-inch IPS highlight screen
Display resolution	1024 × 600
Display specification	16:9
View angle	360-degree full view angle
Backlight brightness	500 cd/m²
Video delay	less than 10 milliseconds
Receiver	5.8 GHz, 40 channels, bands A/B/E/F/R, dual filtering, diversity reception
Antenna heads	2× inner needle antenna head for an SMA inner hole antenna
Charging port	TYPE-C, charging of the built-in battery at 5–23 V
HDMI port	mini HDMI jack, video input
Menu language	Chinese, English, Japanese, German, French, Spanish, Italian, Russian
Video size	VGA / D1 / HD
Recording time	off / 3 / 5 / 10 minutes
Frame rate	30 frames per second
Compression format	MJPEG
Video file format	AVI
Memory card	TF (microSD), high-speed, max. 32 GB
Battery	built-in lithium-polymer, 3.7 V / 2000 mAh
Power adapter	12 V / 2 A or DC 5 V / 2 A recommended
Working current	1100 mA
Body size	158 × 116 × 85 mm
Body weight	350 g (excluding antenna)

6. Frequencies and Operation in the Czech Republic

6.1 Frequency table

The receiver works with the universal 40-channel table. The values are given in MHz.

Band	CH1	CH2	CH3	CH4	CH5	CH6	CH7	CH8
A	5865	5845	5825	5805	5785	5765	5745	5725
B	5733	5752	5771	5790	5809	5828	5847	5866
E	5705	5685	5665	5645	5885	5905	5925	5945
F	5740	5760	5780	5800	5820	5840	5860	5880
R	5658	5695	5732	5769	5806	5843	5880	5917

6.2 Conditions of operation in the Czech Republic

The goggles are **a receiver only** — they do not transmit and no authorisation is required to operate them. Compliance with the operating conditions is the responsibility of the operator of the **video transmitter (VTX)** from which the goggles receive.

- In the Czech Republic, under the general authorisation of the Czech Telecommunication Office **VO-R/10/05.2025-5** (effective from 15 June 2025), the band **5725–5875 MHz** may be used with a radiated power of no more than **25 mW e.i.r.p.**
- The equipment may only be operated with a built-in antenna or with an antenna specified by the manufacturer, **without additional amplifiers** of radio-frequency power and without repeaters.
- Analogue video transmission is permitted in this band.
- **Outside the permitted band** in the Czech Republic lies the whole band **E**, as well as channels **R1 (5658), R2 (5695), F8 and R7 (5880) and R8 (5917)**. A transmitter must not be operated on these frequencies.
- The frequency must be chosen with regard to the occupied bandwidth — an analogue signal occupies about 20 MHz, so even a channel with a centre frequency near the edge of the band may exceed the permitted range.
- Operation takes place on shared frequencies without protection against interference; the operator must not cause harmful interference to other equipment.

※ National implementing regulations — permitted bands and maximum transmitting powers — differ from country to country. The information in this chapter describes the situation in the Czech Republic. If you operate the equipment in another country, follow the regulations of the country in

which you operate it.

6.3 Flying with goggles (FPV)

If you use the goggles to control an unmanned aircraft, Regulation (EU) 2019/947 applies. Under Article 4(1)(d), the remote pilot must keep the unmanned aircraft in visual line of sight unless an **unmanned aircraft observer** is used.

- When flying with goggles you must not be alone — an observer must stand beside you and keep the aircraft under continuous observation **with the unaided eye**, without binoculars or other optical aids.
- Clear and effective communication must be established between the pilot and the observer.
- The observer does not serve to extend the range of the flight beyond the limit of your own direct observation.
- The remote pilot is always responsible for the safety of the flight.
- The operator of an unmanned aircraft equipped with a camera must register with the Civil Aviation Authority and mark the registration number on the aircraft.

7. Maintenance and Troubleshooting

- Clean the optics with a dry microfibre cloth. Do not use corrosive or solvent-based cleaners.
- Store the device in a dry place, away from direct sunlight and high temperatures.
- Tighten the antenna connectors by hand only; excessive tightening will damage the connector.
- Do not switch the device on without the antennas connected if a video transmitter is switched on nearby.

▶ The device does not switch on

- Charge the battery and try again; hold the Power button for the full 3 seconds.
- Check that the charging indicator is red during charging and green when the battery is full.

▶ The image is noisy or missing

- Check that the goggles and the video transmitter are set to the **same band and the same channel**; alternatively use the automatic search with the Search button.
- Check that both antennas are properly tightened and undamaged.
- Check that the device is not in HDMI input mode — RF reception does not work in that mode.
- Reduce the distance from the transmitter and remove obstacles in the line of sight.

▶ Nothing is recorded

- Insert a high-speed TF memory card of up to 32 GB.
- Check the recording time set in the menu — if it is set to „off“, recording will not start.
- Watch the video indicator (item 1) to see whether the DVR has actually started recording.

▶ The image cannot be focused

- Adjust both gears (items 3 and 12) separately for each eye.
- The correction range is 0°–700° in the Chinese notation, i.e. approximately down to −7 dioptres. A stronger refractive error cannot be corrected by this adjustment.

8. Information for the EU and Czech Market

8.1 Importer and responsible person in the EU

The product is placed on the European Union market by the importer stated below, who is at the same time the responsible person within the meaning of Article 16 of Regulation (EU) 2023/988 of the European Parliament and of the Council on general product safety (GPSR).

Importer / responsible person in the EU	Rotorama, s.r.o.
Company ID (IČO)	051 57 692
VAT ID (DIČ)	CZ05157692
Registered office	Okrajová 1351, 674 01 Třebíč, Czech Republic
E-mail	info@rotorama.cz
Phone	+420 252 252 098
Website	www.rotorama.cz

8.2 Product conformity

CE

- The product bears the **CE** marking and complies with the requirements of the applicable European Union harmonisation legislation.
- A copy of the **EU Declaration of Conformity** is available from the importer at the address stated above or at the e-mail address info@rotorama.cz.
- **Product identification:** the type designation (VR200) and the serial number are given on the rating label on the product and on the packaging.

8.3 Disposal of electrical equipment and batteries

- The crossed-out wheeled bin symbol on the product, its packaging or in the documentation means that at the end of its service life the product **must not be disposed of together with mixed municipal waste**.
- Hand it over at a take-back point for electrical equipment – at a collection yard, at a take-back point of a collective system, or at the retailer when purchasing a new equivalent product. Take-back is free of charge for the end user.
- The product contains a built-in rechargeable battery. Where possible, hand it over together with the device – do not dispose of the battery in mixed waste or in fire.
- The obligations under Act No. 542/2020 Coll., on end-of-life products, are fulfilled by the importer through a collective take-back system.
- Proper disposal helps prevent negative impacts on the environment and human health and contributes to the reuse of secondary raw materials.

Through its contractual partner **ASEKOL a.s.**, the company ensures the take-back of waste electrical equipment from households and the separate collection of waste electrical equipment, batteries and accumulators in accordance with the applicable legislation. The customer is entitled to hand over old electrical equipment or a battery or accumulator at any collection point of the above contractual partner. The addresses of these take-back points are listed at www.asekol.cz, www.ecobat.cz and also https://visoh2.mzp.cz/RegistrMistZO/RegistrMistZOPublic/MapaMistZpetOdberu.

9. Warranty and rights arising from defective performance

The rights and obligations of the contracting parties are governed by Czech law, in particular by Act No. 89/2012 Coll., the Civil Code, and Act No. 634/1992 Coll., on consumer protection.

- The seller is liable to the buyer for the product being free of defects on receipt. If the buyer is a consumer, a defect may be notified **within two years of receipt** of the product (Section 2165 of the Civil Code).
- If a defect appears within **one year** of receipt, the product is deemed to have been defective already at the time of receipt (Section 2161(5) of the Civil Code).
- When purchasing online, a consumer has the right to **withdraw from the contract within 14 days** of receiving the goods without giving a reason (Section 1829 of the Civil Code).
- Claims should be made with the retailer from whom you purchased the product. The importer's contact details are given in Chapter 8.1.
- The competent body for out-of-court settlement of consumer disputes is the **Czech Trade Inspection Authority**, Štěpánská 796/44, 110 00 Prague 1, www.coi.cz.